



Figure 1. A Schematic Illustration of the Use of a Fluorous Reaction Component in an Organic Transformation

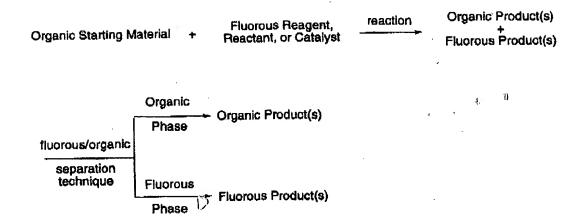
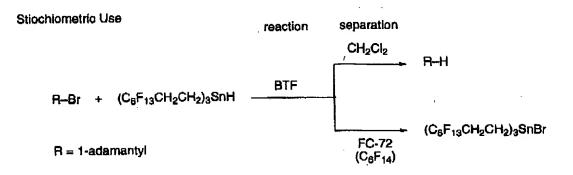
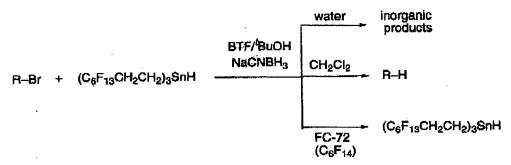


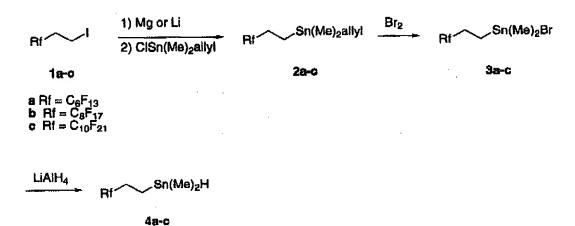


Figure 2. Illustrative Uses of Fluorous Tin Reagent (C₆F₁₃CH₂CH₂)₃SnH

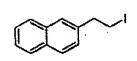


Catalytic Use



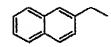






1) **4b** or **4c** *BuOH, NaCNBH₃

2) Fluorous-solid phase extraction



tin reagent	eluting solvent	yleid
4b	85/15 MeOH/H ₂ O	83%
4c	100% CH ₃ N	83%

Figure 5. Synthesis and Use of Representative Fluorous Tin Reagents Bearing Two Fluorous Chains

$$Rf = \frac{1) \text{ Mg/Et}_2O}{2) \text{ Ph}_2\text{SnCl}_2} \qquad (RfCH_2CH_2)_2\text{SnPh}_2 \qquad \frac{\text{CICH}_2\text{CO}_2\text{H}}{\text{heat}}$$

$$1a \text{ Rf} = C_6\text{F}_{13} \qquad \qquad 5a$$

$$(RfCH_2CH_2)_2\text{Sn}(OCOCH_2Cl)_2 \qquad \frac{\text{NaOH}}{\text{CH}_2\text{Cl}_2} \qquad (C_6\text{F}_{13}\text{CH}_2\text{CH}_2)_2\text{Sn=O}$$

$$6a \qquad \qquad 7a, \text{ exists as oligomer/polymer}$$

either liquid-liquid or solld-liquid extraction can be used for the separation

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